



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/728,685

12/05/2003

Christopher W. Dix

M-15299 US

9055

7590

07/07/2006

Greg J. Michelson  
MacPHERSON KWOK CHEN & HEID LLP  
1762 Technology Drive, Suite 226  
San Jose, CA 95110

EXAMINER

NGUYEN, MATTHEW VAN

ART UNIT

PAPER NUMBER

2838

DATE MAILED: 07/07/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/728,685

Applicant(s)

DIX, CHRISTOPHER W.

Examiner

MATTHEW V. NGUYEN

Art Unit

2838

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 26 April 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-15 and 25-27 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3, 6-13 and 25 is/are rejected.
- 7) ☒ Claim(s) 4, 5, 14, 15, 26 and 27 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

1. Applicant's amendment filed on 4/26/06 has been entered and carefully considered. Claims 16-24 have been canceled. New claims 25-27 have been added. However, arguments regarding rejections 35 U.S.C. 102(b) to claims 1, 2, 6, 7 and 9; and 35 U.S.C. 103 to claims 3-8 and 10-13 have not been found to be persuasive. These claims and also new added claim 25 are rejected under the same ground of rejection as set forth in the Office Action mailed out 2/27/06. Claims 4, 5, 14, 15, 26 and 27 are found to be patentable over prior art but objected to as being dependent upon a rejected base claim, and would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 2, 6, 7, 9 and 25 are rejected under 35 U.S.C. 102(b) as being anticipated by Plankensteiner et al. (U.S. Pat. No. 6,479,975).

With regard to claims 1, 2, 6, 7, 9 and 25, Plankensteiner et al. (i.e., Fig. 4) shows an electronic circuit comprising a first transistor ( $M_{OUT}$ ) connecting an output terminal of the power supply to a load ( $R_{LOAD}$ ), a second transistor ( $M_{SENSE}$ ) connecting a sense terminal of the power supply to the load, a controller (CONTROL) providing an output signal (312) for controlling the first and second

Art Unit: 2838

transistors, switching them on to apply power from the power supply to the load and sensing the load to the power supply at about the same time, the first and second transistors being MOSFETs, and the load and power supply being part of the circuit.

Applicant has argued that Plankensteiner does not show a second transistor adapted to connect a sense terminal of the first power supply to the load. That is not quite correct, because the second transistor ( $M_{\text{SENSE}}$ ) in Fig. 4 of Plankensteiner connects the sense terminal of the power supply (VDD) to the load ( $R_{\text{LOAD}}$ ) through the comparator (356).

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 3, 8 and 10-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Plankensteiner et al. in view of Terrien (U.S. Pat. No. 6,693,410).

With regard to claims 3, 8 and 10-13, Plankensteiner et al. shows an electronic circuit comprising all the claimed subject matter as discussed in subparagraph 3 above, except for the controller varying the ramp rate of the output signal, and first and second resistors being arranged between control terminals of the first and second transistors, respectively, and the controller.

Terrien (i.e., 1) discloses a controlling circuit in which the ramp rate is varying (col. 3, line 45-60), and every transistor in the circuit being connected to a resistor at its control terminal.

It would have been obvious to one having ordinary skill in the art at time the invention was made to utilize the controller varying the ramp rate of the output signal, and a resistor connected at the control terminal of each transistor in the circuit of Terrien into that of Plankensteiner et al. for the purpose of obtaining a better and more stable control signal to the switching transistors.

Applicant has further argued that Plankensteiner fails to disclose a second transistor adapted to connect a sense terminal of the first power supply to the load as recited in independent claim 1, therefore claims 3, 8 and 10-13 are patentable. However, as discussed above in the paragraph 2, Plankensteiner shows all the limitations of claim 1, along with the motivation of Terrien as shown above, claims 3, 8 and 10-13 are not patentable over Plankensteiner in view of Terrien.

4. Claims 4, 5, 14, 15, 26 and 27 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

None of prior art of record taken alone or in combination shows a third transistor connecting an output terminal of a second power supply to a second load, a fourth transistor connecting a sense terminal of the second power supply to the second load and the controller also providing the output signal to the third and

Art Unit: 2838

fourth transistors and providing remote sensing from the second load to the second power supply at approximately the same time.

**5. THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

**6.** Any inquiry concerning this communication or earlier communications from the examiner should be directed to Matthew V. Nguyen whose telephone number is (571) 272-2081.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (571) 272-2800.

*Matthew V. Nguyen*  
**MATTHEW V. NGUYEN**  
**PRIMARY EXAMINER**